



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,350	10/25/2001	Ryong Ryoo	HYLEE56.001AUS	3783
20995	7590	12/08/2004		
KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614				EXAMINER HENDRICKSON, STUART L
			ART UNIT 1754	PAPER NUMBER

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	10004350	Applicant(s)	Ryoo
Examiner	Hindickson	Group Art Unit	1154

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- Responsive to communication(s) filed on 9/21/04
- This action is FINAL.
- Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 1 1; 453 O.G. 213.

### Disposition of Claims

- Claim(s) 1-10, 12-33 is/are pending in the application.
- Of the above claim(s) 27 is/are withdrawn from consideration.
- Claim(s) \_\_\_\_\_ is/are allowed.
- Claim(s) 1-10, 12-26, 28-33 is/are rejected.
- Claim(s) \_\_\_\_\_ is/are objected to.
- Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

### Application Papers

- The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.
- The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119 (a)-(d)

- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

All  Some\*  None of the:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received  
in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

### Attachment(s)

- Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_  Interview Summary, PTO-413
- Notice of Reference(s) Cited, PTO-892  Notice of Informal Patent Application, PTO-152
- Notice of Draftsperson's Patent Drawing Review, PTO-948  Other \_\_\_\_\_

## Office Action Summary

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The status identifier of claim 27 is wrong- it should be 'withdrawn'. Claim 7 should depend upon claim 6. Claim 5 appears to be redundant.

Claims 1-10, 16, 18-26, 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al., alone or in view of applicant's specification.

Lee teaches on pg. 2177 impregnating a molecular sieve with phenol-formaldehyde, polymerizing, carbonizing and etching the template to create a carbon with uniform mesopores. No difference is seen in the product; compare to specification fig. 7. Lee does not teach the claimed supports, however applicant appears to admit that they are old and known porous inorganic materials. Using them in place of MCM-48 is an obvious expedient to make a carbon material of a desired structure and/or porosity, based upon the structure of the template.

Claims 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al., alone or in view of applicant's specification as applied to claims 1-10, 16, 18-26, 29-33 above, and further in view of Lester et al.

Lee does not teach carbohydrates, however Lester does in column 3-4 and 6 in a similar scheme. Using the compounds of Lester in the process of Lee is an obvious expedient to provide a carbon source for making a carbonaceous body.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al., alone or in view of applicant's specification as applied to claims 1-10, 16, 18-26, 29-33 above, and further in view of Hucke.

Lee does not teach the particular sources, but Hucke does in column 5. Using the compounds of Hucke in the process of Lee is an obvious expedient to provide a carbon source for making a carbonaceous body. The examiner takes Official notice that the other species are old and known are carbonizable compounds, and thus no patentability is seen in claim 17.

Claims 1-10, 12-26 and 28-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description or enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no description of how one can make the nanotube structure recited. There is no evidence that these structures are present, particularly since decomposition of organic material is not recognized as a way to make a carbon nanotube. It is not seen how the figures 1, 7 show a nanotube structure. Carbon nanotubes are made by high energy catalytic processes such as laser ablation and arc-discharge.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

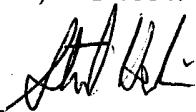
Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-10, 12-26 and 28-33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6585948. Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim common and essentially the same subject matter.

Applicant's arguments filed 7/26/04 have been fully considered but they are not persuasive. A Declaration should be submitted characterizing the product made and comparing it to the applied art by scientific analysis of the structure. The templates are old and known, and this is

admitted. The references are deemed to make the claimed structure due to the similarity of the synthesis to the present. As the micrographs are a cross section, they do not establish that nanotubes are made. It is noted that single-wall carbon nanotubes are known to self-assemble in a packing similar to that shown in fig. 7, but due to their diameter (about 1.3 nm), create spaces between them smaller than the pore size claimed.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (571) 272-1351.



Stuart Hendrickson  
examiner Art Unit 1754